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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,694	10/07/2003	Akihiko Shiraishi	1232-5173	5889

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EXAMINER	
MISLEH, JUSTIN P	
ART UNIT	**PAPER NUMBER**
2622	
NOTIFICATION DATE	**DELIVERY MODE**
11/19/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

Office Action Summary	**Application No.** 10/681,694	**Applicant(s)** SHIRAISHI ET AL.	
	Examiner Justin P. Misleh	**Art Unit** 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2007*.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 12 and 14* is/are pending in the application.
 4a) Of the above claim(s) *15 - 27* is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1 - 12 and 14* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *07 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a)☒ All b)☐ Some * c)☐ None of:
  1.☒ Certified copies of the priority documents have been received.
  2.☐ Certified copies of the priority documents have been received in Application No. _____.
  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date *4/30/07*.
4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Note: The Examiner for the present application has changed.

Response to Arguments

1. Applicant's arguments filed April 30, 2007 have been fully considered but they are not persuasive.

2. Applicant argues, "The image sensing apparatus uses the measurements for the two objects to be photographed to control the focus operation of the camera. [See Soshi, col. 5, lines 6-64 (description of calculations based on numerical formula)] ... In fact, only the distance and luminance of the objects to be photographed are used as a basis for controlling the focus operation of the image sensing apparatus ... Soshi does not mention using distance or luminance 'information on a photographing frequency' to control its focus operation ... In fact, Soshi does not mention any kind of 'information on a photographing frequency' ... Therefore, Soshi does not teach, disclose or suggests 'a control device which refers to said memory to detect an object distance having the highest photographing frequency among object distances corresponding to the acquired object brightness value, and controls image sensing operation on the basis of the detected object distance information' as recited in Applicant's claim 1."

3. The Examiner respectfully disagrees with Applicant's position. According to Soshi (see column 5, lines 1 – 20), a plurality of object distances and brightness information are stored for a plurality of subjects. The control device then refers to the stored information to determine and optimum depth of field among the plurality of objects. The Examiner considers the optimum depth of field to directly correspond to the highest photographing frequency. Soshi then controls

the image sensing operations based upon the stored data and the determination (see column 5, lines 21 - 40 and column 6, lines 5 - 39). Contrary to Applicant's assertions, Soshi indeed discloses a control device which refers to said memory to detect an object distance having the highest photographing frequency among object distances corresponding to the acquired object brightness value, and controls image sensing operation on the basis of the detected object distance information, as claimed in amended Claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1 – 3, 7 – 9, 13 and 14** are rejected under 35 U.S.C. 102(b) as being anticipated by Soshi (US 5,400,110).

The Examiner respectfully notes Claim 1 – 3 and Claims 7 – 9 appear to be corresponding apparatus and method claims, respectively. Accordingly, they will be rejected together.

6. For **Claims 1 and 7**, Soshi discloses an image sensing apparatus comprising:

a memory (column 3, line 47 memory) which stores a database formed by statistically processing information on a photographing frequency (see column 4, lines 21 – 25) in association with object distance information (see column 4, lines 15 – 34, noted that distance data Dl is stored) and brightness information (column 5, lines 6 – 10);

an acquisition device (figure 1, photometering sensor 26) which acquires an object brightness value (column 5, lines 1 – 10, noted that it detects the luminance of the object) on the basis of image information sensed by an image sensing device; and

a control device (figure 1, control circuit 24) which refers to said memory to detect an object distance having the highest photographing frequency ("optimum depth of field"; see column 6, lines 5 – 10) among object distances ("two object distances D1 and D2"; see column 4, lines 21 and 25) corresponding to the acquired brightness value (see column 5, lines 6 – 20), and controls image sensing operation on the basis of the detected object distance information (see column 6, lines 5 – 10 and 30 – 39).

According to Soshi (see column 5, lines 1 – 20), a plurality of object distances and brightness information are stored for a plurality of subjects. The control device then refers to the stored information to determine and optimum depth of field among the plurality of objects. The Examiner considers the optimum depth of field to directly correspond to the highest photographing frequency. Soshi then controls the image sensing operations based upon the stored data and the determination (see column 5, lines 21 - 40 and column 6, lines 5 - 39).

7. As for **Claims 2 and 8**, Soshi discloses wherein said control device (fig. 1 control circuit 24) sets a scanning range (col. 4, lines 59-62, noted the object distance data Dl and D2 measured by detecting means 14) of a focus adjustment lens for determining an in-focus position by limiting the scanning range (col. 4, lines 59-62, noted the object distance data Dl and D2 measured by detecting means 14) to a predetermined range including a selected object distance, and determines an in-focus position (col. 5, lines 6-1 1, noted that the desired object distance is obtained based on the data stored in memory).

8. As for **Claims 3 and 9**, Soshi discloses wherein when no in-focus position (col. 5, lines 11-12, noted that object distance Dl and D2 are not within the depth field) can be determined, said control device drives and controls the focus adjustment lens to a position corresponding to the selected object distance (col. 5 line 67 to col. 6 line 4, noted that control circuit operates to make the two object distances fall within the range).

9. For **Claim 14**, Soshi discloses an image sensing apparatus comprising:

a memory (column 3, line 47 memory) which stores a database formed by statistically processing information on a photographing frequency (see column 4, lines 21 – 25) in association with object distance information (see column 4, lines 15 – 34, noted that distance data Dl is stored) and brightness information (column 5, lines 6 – 10);

an acquisition device (figure 1, photometering sensor 26) which acquires an object brightness value (column 5, lines 1 – 10, noted that it detects the luminance of the object) on the basis of image information sensed by an image sensing device; and

a control device (figure 1, control circuit 24) which refers to said memory to detect an object distance having the highest photographing frequency ("optimum depth of field"; see column 6, lines 5 – 10) among object distances ("two object distances D1 and D2"; see column 4, lines 21 and 25) corresponding to the acquired brightness value (see column 5, lines 6 – 20), and controls image sensing operation on the basis of the detected object distance information (see column 6, lines 5 – 10 and 30 – 39).

According to Soshi (see column 5, lines 1 – 20), a plurality of object distances and brightness information are stored for a plurality of subjects. The control device then refers to the stored information to determine and optimum depth of field among the plurality of objects. The

Examiner considers the optimum depth of field to directly correspond to the highest photographing frequency. Soshi then controls the image sensing operations based upon the stored data and the determination (see.column 5, lines 21 - 40 and column 6, lines 5 - 39).

Soshi additionally discloses a computer readable storage medium which stores a program for realizing the image sensing apparatus and corresponding method (see column 3, lines 44 – 47).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. **Claims 4 – 6 and 10 – 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Soshi (US 5,400,110) in view of Takahashi (US 7,009,641 B2).

The Examiner respectfully notes Claim 4 – 6 and Claims 10 – 12 appear to be corresponding apparatus and method claims, respectively. Accordingly, they will be rejected together.

12. As for **Claims 4 and 10**, Soshi teaches wherein when an object distance corresponding to an in-focus position is not more than thresholds (column 5, lines 11-12, noted that the object distance Dl and D2 is not within tile depth of field).

However, Soshi does not specifically teach about an indoor photography operation.

In an analogous art, Takahashi teaches the acquired brightness value (col. 15, lines 13-14, subject brightness) is not more than thresholds (fig. 13, step S503 and col. 15, lines 13-16, noted that the subject brightness is compared with a predetermined value whether it is equal or lower) and control device (fig. 2, CPU 21) controls the image sensing operation to indoor (fig. 13, operations from S503- S504, col. 15, lines 16-20, noted that the indoor photographing operation is determined) image sensing operation.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the device of Soshi by incorporating the method as taught by Takahashi in order to intelligently recognize whether the scene requires indoor or outdoor image sensing mode (fig. 13, steps S503, S504 and S507, noted that the step S503 determines whether the scene is indoor or outdoor based on the brightness value captured).

13. As for **Claims 5 and 11,** Soshi teaches all claimed limitation with the exception wherein as the indoor image sensing operation, an emission amount of test emission of emitting light in advance in order to set an emission amount of an illumination device for illuminating an object is set smaller than an outdoor emission amount.

In an analogous art, Takahashi wherein as the indoor image sensing operation (fig. 13, indoor operations from S503-S504), an emission amount of test emission of emitting light (fig. 13, step S504 and col. 15, lines 20-23, noted that the fluorescent light is determined) in advance in order to set an emission amount of an illumination device for illuminating an object is set smaller (since indoor scene is brighter with fluorescent light, thus it is set smaller than outdoor image sensing) than an outdoor emission amount.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the device of Soshi by incorporating the method of determining the light emission as taught by Takahashi in order to determine whether fluorescent light is needed for different photographing scene (fig. 13, steps S503, S504 and S507 and col. 15, lines 20-28).

14. As for **Claims 6 and 12,** Soshi teaches all claimed limitation with the exception of wherein as the indoor image sensing operation, an extraction range for extracting white image information from the image information sensed by the image sensing device in order to adjust white balance is made by said control device to differ from an outdoor extraction range.

In an analogous art, Takahashi teaches wherein as the indoor image sensing operation (fig. 13, indoor operations from S503-S504), an extraction range for extracting white image information (col. 15, lines 44-49, noted that the white balance gains are determined) from the image information (col. 15, lines 45, color temperature) sensed by the image sensing device (fig. 2, image capturing element 26) in order to adjust (col. 15, lines 44-49, noted that the white balance adjustment gain values are used to adjust the white balance) white balance is made by said control device to differ (col. 16, lines 2-8, noted that white balance adjustment gain values are determined based on the different color temperature, since indoor and outdoor extraction range are different, the white balance adjustment gain values are also computed differently) from an outdoor extraction range.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention modify the device of Soshi by incorporating the method of extracting the white image information as taught by Takahashi in order to adjust the white balance in conformance to the level of the brightness of the object (col. 14, lines 38-44).

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Lin Ye can be reached on 571.272.7372. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Justin Misleh
Examiner, GAU 2622
November 13, 2007

LIN YE
SUPERVISORY PATENT EXAMINER